



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(MBHB Case No. 03-332-B; 400/126)

In the Application of:

McSwiggen et al.

Serial No.: 10/652,791

Filing Date: August 29, 2003

For: RNA Interference Mediated Inhibition of
Platelet-Derived Endothelial Cell Growth
Factor (ECGF1) Gene Expression Using
Short Interference Nucleic Acid (siNA)

Examiner:

Group Art Unit: 1635

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents
Alexandria, Virginia 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97 - 1.99, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56. Copies of the cited references are enclosed. These references are also listed on the enclosed PTO Form 1449.

The Office has waived the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC § 371 after June 30, 2003. In accordance with this waiver, cited U.S. patents and U.S. patent application publications are not enclosed.

Also, attached to each reference in a language other than English is a translation of the reference in accordance with 37 C.F.R. § 1.98 (a) (3)(ii).

In the judgment of the undersigned, portions of the listed references may be material to the Examiner's consideration of the presently pending claims. This statement is not a representation that the listed references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. Section 102 or Section 103.

Applicants do not believe any fee is due with this submission. If this belief is in error and the Patent Office determines that the fee prescribed in the relevant portion of 37 C.F.R. Section 1.97 is applicable, the undersigned attorney by his signature hereby authorizes any such fee to be debited from Deposit Account 13-2490.

U.S. Patent Application Documents

- * Castor, U.S. Publication No. 2002/0130430, published September 12, 2002
- * Churikov, U.S. Publication No. 2002/0137210
- * Vargeese et al., U.S. Application No. 10/201,394, filed August 13, 2001
- * Thompson et al., U.S. Application No. 60/082,404, filed April 20, 1998
- * Beigelman et al., U.S. Application No. 60/358,580, filed February 2, 2002
- * Matulic-Adamic et al., U.S. Application No. 60/362,016, filed March 6, 2002
- * Beigelman et al., U.S. Application No. 60/363,124, filed March 11, 2002
- * Usman et al., U.S. Application No. 60/402,996, filed August 13, 2002
- * Beigelman et al., U.S. Application No. 60/406,784, filed August 29, 2002
- * Beigelman et al., U.S. Application No. 60/408,378, filed September 5, 2002
- * Beigelman et al., U.S. Application No. 60/409,293, filed September 9, 2002
- * Beigelman et al., U.S. Application No. 60/440,129, filed January 15, 2003

U.S. Patent Documents

- * Sproat, Patent No. 5,334,711, issued August 2, 1994
- * Noonberg et al., Patent No. 5,624,803, issued April 29, 1997
- * Usman et al., Patent No. 5,627,053, issued May 6, 1997

- * Usman et al., Patent No. 5,631,360, issued May 20, 1997
- * Eckstein et al., Patent No. 5,672,695, issued September 30, 1997
- * Beigelman et al., Patent No. 5,716,824, issued February 10, 1998
- * Usman et al., Patent No. 5,804,683, issued September 8, 1998
- * Usman et al., Patent No. 5,831,071, issued November 3, 1998
- * Cech et al., Patent No. 5,854,038, issued December 29, 1998
- * Scaringe et al., Patent No. 5,889,136, issued March 30, 1999
- * Thompson et al., Patent No. 5,902,880, issued May 11, 1999
- * Adamic et al., Patent No. 5,998,203, issued December 7, 1999
- * Brennan, Patent No. 6,001,311, issued December 14, 1999
- * Scaringe et al., Patent No. 6,008,400, issued December 28, 1999
- * Bellon et al., Patent No. 6,054,576, issued April 25, 2000
- * Scaringe et al., Patent No. 6,111,086, issued August 29, 2000
- * Usman et al., Patent No. 6,117,657, issued September 12, 2000
- * Thompson et al., Patent No. 6,146,886, issued November 14, 2000
- * Bellon et al., Patent No. 6,162,909, issued December 19, 2000
- * Adamic et al., Patent No. 6,248,878, issued June 19, 2001
- * Gold, Patent No. 6,300,074, issued October 9, 2001
- * Bellon et al., Patent No. 6,303,773, issued October 16, 2001
- * Usman et al., Patent No. 6,353,098, issued March 5, 2002
- * Usman et al., Patent No. 6,362,323, issued March 26, 2002
- * Beigelman et al., Patent No. 6,395,713, issued May 28, 2002
- * Usman et al., Patent No. 6,437,117, issued August 20, 2002
- * Vook et al., Patent No. 6,447,796, issued September 10, 2002
- * Usman et al., Patent No. 6,469,158, issued October 22, 2002
- * Fire et al., Patent No. 6,506,559, issued June 14, 2003

Foreign Patents

1. Kreutzer et al., Canadian Patent No. 2,359,280, issued d August 3, 2000
2. Kreutzer et al., European Patent No. 1144623, published January 29, 2002
3. Arnold et al., International Application No. WO 89/02439, filed March 23, 1989

4. Rossi et al., International Application No. WO 91/03162, filed March 21, 1991
5. Eckstein et al., International Application No. WO 92/07065, filed April 30, 1992
6. Usman et al., International Application No. WO 93/15187, filed August 5, 1993
7. Draper et al., International Application No. WO 93/23569, filed November 25, 1993
8. Sullivan et al., International Application No. WO 94/02595, filed February 3, 1994
9. Usman et al., International Application No. WO 95/06731, filed March 9, 1995
10. Dudycz et al., International Application No. WO 95/11910, filed May 4, 1995
11. Ansell et al., International Application No. WO 96/10390, filed April 11, 1996
12. Choi et al., International Application No. WO 96/10391, filed April 11, 1996
13. Holland et al., International Application No. WO 96/10392, filed April 11, 1996
14. Beigelman et al., International Application No. WO 97/26270, filed July 24, 1997
15. Woolf et al., International Application No. WO 98/13526, filed April 2, 1998
16. Deschamps de Paillette et al., International Application No. WO 99/07409, filed February 18, 1999
17. Wengel et al., International Application No. WO 99/14226, filed March 25, 1999
18. Barry et al., International Application No. WO 99/31262, filed June 24, 1999
19. Fire et al., International Application No. WO 99/32619, filed July 1, 1999
20. Graham et al., International Application No. WO 99/49029, filed September 30, 1999
21. Waterhouse et al., International Application No. WO 99/53050, filed October 21, 1999
22. Thompson et al., International Application No. WO 99/54459, filed October 28, 1999
23. Plaetinck et al., International Application No. WO 00/01846, filed January 13, 2000
24. Kreutzer et al., International Application No. WO 00/44895, filed August 3, 2000
25. Li et al., International Application No. WO 00/44914, filed August 3, 2000
26. O'Hare and Normand, International Application No. WO 00/53722, filed September 14, 2000
27. Pachuk et al., International Application No. WO 00/63364, filed October 26, 2000
28. Wengel et al., International Application No. WO 00/66604, filed November 9, 2000
29. Satishchandran et al., International Application No. WO 01/04313, filed January 18, 2001
30. Mello et al., International Application No. WO 01/29058, filed April 26, 2001
31. Zernicka-Goetz et al., International Application No. WO 01/36646, filed May 25, 2001
32. Grossniklaus, International Application No. WO 01/28551, filed May 31, 2001

33. Churikov et al., International Application No: WO 01/42443, filed June 14, 2001
34. Driscoll et al., International Application No. WO 01/49844, filed July 12, 2001
35. Cogoni et al., International Application No. WO 01/53475, filed July 26, 2001
36. Beach et al., International Application No. WO 01/68836, filed September 20, 2001
37. Honer et al., International Application No. WO 01/70944, filed September 27, 2001
38. Graham et al., International Application No. WO 01/70949, filed September 27, 2001
39. Deak et al., International Application No. WO 01/72744, filed October 4, 2001
40. Tuschl et al., International Application No. WO 01/75164, filed October 11, 2001
41. Arndt et al., International Application No. WO 01/92513, filed May 29, 2002
42. Echeverri et al., International Application No. WO 02/38805, filed May 16, 2002
43. Tuschl et al., International Application No. WO 02/44321, filed June 6, 2002
44. Kreutzer et al., International Application No. WO 02/55692, filed July 18, 2002
45. Kreutzer et al., International Application No. WO 02/55693, filed July 18, 2002
46. McSwiggen et al., International Application No. WO 03/05028, filed February 20, 2003
47. McSwiggen et al., International Application No. WO 03/05346, filed February 20, 2003

OTHER DOCUMENTS

48. Akhtar and Juliano, "Cellular Uptake and Intracellular Fate of AntiSense Oligonucleotides," Trends Cell Biol. 2:139-144 (1992)
49. Aldrian-Herrada et al., "A peptide nucleic acid (PNA) is more rapidly internalized in cultured neurons when coupled to a *retro-inverso* delivery peptide. The antisense activity depresses the target mRNA and protein in magnocellular oxytocin neurons," Nucleic Acids Research 26:4910-4916 (1998)
50. Allshire, "RNAi and Heterochromatin - A Hushed-up Affair," Science 297:1818-1819 (2002)
51. Andrews and Faller, "A rapid micropreparation technique for extraction of DNA-binding proteins from limiting numbers of mammalian cells," Nucleic Acids Research 19:2499 (1991)
52. Baenziger and Fiete, "Galactose and N-Acetylgalactosamine-Specific Endocytosis of Glycopeptides by Isolated Rat Hepatocytes," Cell 22:611-620 (1980)
53. Bass, "The short answer," Nature 411:428-429 (2001)

54. Beaucage and Iyer, "The Functionalization of Oligonucleotides Via Phosphoramidite Derivatives," Tetrahedron 49:1925-1963 (1993)
55. Beigelman et al., "Chemical Modification of Hammerhead Ribozymes," The Journal of Biological Chemistry 270:25702-25708 (1995)
56. Bellon et al., "Amino-Linked Ribozymes: Post-Synthetic Conjugation of Half-Ribozymes," Nucleosides & Nucleotides 16:951-954 (1997)
57. Bellon et al., "Post-synthetically Ligated Ribozymes: An Alternative Approach to Iterative Solid Phase Synthesis," Bioconjugate Chem. 8:204-212 (1997)
58. Berkman et al., "Expression of the Vascular Permeability Factor/Vascular Endothelial Growth Factor Gene in Central Nervous System Neoplasms," The Journal of Clinical Investigation, Inc. 91:153-159 (1993)
59. Bernstein et al., "Role for a Bidentate Ribonuclease in the Initiation Step of RNA Interference," Nature 409:363-366 (2001)
60. Boado et al., "Drug Delivery of Antisense Molecules to the Brain for Treatment of Alzheimer's Disease and Cerebral AIDS," Journal of Pharmaceutical Sciences 87:1308-1315 (1998)
61. Boado, "Antisense drug delivery through the blood-brain barrier," Advanced Drug Delivery Reviews 15:73-107 (1995)
62. Brennan et al., "Two-Dimensional Parallel Array Technology as a New Approach to Automated Combinatorial Solid-Phase Organic Synthesis," Biotechnology and Bioengineering (Combinatorial Chemistry) 61:33-45 (1998)
63. Brody and Gold, "Aptamers as therapeutic and diagnostic agents," Reviews in Molecular Biotechnology 74:5-13 (2000)
64. Burger et al., "Experimental Corneal Neovascularization: Biomicroscopic, Angiographic, and Morphologic Correlation," Cornea 4:35-41 (1985/1986)
65. Burgin et al., "Chemically Modified Hammerhead Ribozymes with Improved Catalytic Rates," Biochemistry 35:14090-14097 (1996) (volume no. mistakenly listed as 6)
66. Burlina et al., "Chemical Engineering of RNase Resistant and Catalytically Active Hammerhead Ribozymes," Bioorganic & Medicinal Chemistry 5:1999-2010 (1997)
67. Caruthers et al., "Chemical Synthesis of Deoxyoligonucleotides and Deoxyoligonucleotide Analogs," Methods in Enzymology 211:3-19 (1992)

68. Chen et al., "Multitarget-Ribozyme Directed to Cleave at up to Nine Highly Conserved HIV-1 env RNA Regions Inhibits HIV-1 Replication-Potential Effectiveness Against Most Presently Sequenced HIV-1 Isolates," Nucleic Acids Research 20:4581-4589 (1992)
69. Chowrira et al., "In Vitro and in Vivo Comparison of Hammerhead, Hairpin, and Hepatitis Delta Virus Self-Processing Ribozyme Cassettes," J. Biol. Chem. 269:25856-25864 (1994)
70. Cload and Schepartz, "Polyether Tethered Oligonucleotide Probes," J. Am. Chem. Soc. 113:6324-6326 (1991)
71. Connolly et al., "Binding and Endocytosis of Cluster Glycosides by Rabbit Hepatocytes," The Journ. of Biol. Chem. 257:939-945 (1982)
72. Conry et al., "Phase I Trial of a Recombinant Vaccinia Virus Encoding Carcinoembryonic Antigen in Metastatic Adenocarcinoma: Comparison of Intradermal versus Subcutaneous Administration," Clinical Cancer Research 5:2330-2337 (1999)
73. Couture and Stinchcomb, "Anti-gene therapy: the use of ribozymes to inhibit gene function," Trends In Genetics 12:510-515 (1996)
74. Detmar et al., "Overexpression of Vascular Permeability Factor/Vascular Endothelial Growth Factor and its Receptors in Psoriasis," J. Exp. Med. 180:1141-1146 (1994)
75. Dropulic et al., "Functional Characterization of a U5 Ribozyme: Intracellular Suppression of Human Immunodeficiency Virus Type I Expression," Journal of Virology 66:1432-1441 (1992)
76. Durand et al., "Circular Dichroism Studies of an Oligodeoxyribonucleotide Containing a Hairpin Loop Made of a Hexaethylene Glycol Chain: Conformation and Stability," Nucleic Acids Research 18:6353-6359 (1990) [sometimes referred to as Seela and Kaiser]
77. Earnshaw et al., "Modified Oligoribonucleotides as Site-Specific Probes of RNA Structure and Function," Biopolymers 48:39-55 (1998)
78. Elbashir et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," Nature 411:494-498 (2001)
79. Elbashir et al., "Functional Anatomy of siRNAs for Mediating Efficient RNAi in *Drosophila Melanogaster* Embryo Lysate," The EMBO Journal 20:6877-6888 (2001)
80. Elbashir et al., "RNA Interference is Mediated by 21- and 22-Nucleotide RNAs," Genes and Development 15:188-200 (2001)

81. Elkins and Rossi, "Ch. 2 - Cellular Delivery of Ribozymes," in Delivery Strategies for Antisense Oligonucleotide Therapeutics, edited by Akhtar, CRC Press, pp. 17-220 (1995)
82. Elroy-Stein and Moss, "Cytoplasmic Expression System Based on Constitutive Synthesis of Bacteriophage T7 RNA Polymerase in Mammalian Cells," Proc. Natl. Acad. Sci. USA 87:6743-6747 (1990)
83. Emerich et al., "Biocompatibility of Poly (DL-Lactide-co-Glycolide) Microspheres Implanted Into the Brain," Cell Transplantation 8:47-58 (1999)
84. Fava et al., "Vascular Permeability Factor/Endothelial Growth Factor (VPF/VEGF): Accumulation and Expression in Human Synovial Fluids and Rheumatoid Synovial Tissue," J. Exp. Med. 180:341-346 (1994)
85. Ferentz and Verdine, "Disulfided Cross-Linked Oligonucleotides," J. Am. Chem. Soc. 113:4000-4002 (1991)
86. Fire et al., "Potent and Specific Genetic Interference by Double-Stranded RNA in *Caenorhabditis Elegans*," Nature 391:806-811 (1998)
87. Fire, "RNA-triggered Gene Silencing," TIG 15:358-363 (1999)
88. Folkman et al., "Long-term Culture of Capillary Endothelial Cells," Proc. Natl. Acad. Sci. USA 76:5217-5221 (1979)
89. Folkman, Judah, "Tumor Angiogenesis," Advances in Cancer Research 43:175-203 (1985)
90. Freier et al., "Improved free-energy parameters for predictions of RNA duplex stability," Proc. Natl. Acad. Sci. USA 83:9373-9377 (1986) [sometimes referred to as Frier]
91. Gao and Huang, "Cytoplasmic Expression of a Reporter Gene by Co-Delivery of T7 RNA Polymerase and T7 Promoter Sequence with Cationic Liposomes," Nucleic Acids Research 21:2867-2872 (1993)
92. Gold et al., "Diversity of Oligonucleotide Functions," Annu. Rev. Biochem. 64:763-797 (1995)
93. Gonzalez et al., "New Class of Polymers for the Delivery of Macro molecular Therapeutics," Bioconjugate Chem., 10, 1068-1074 (1999)
94. Good et al., "Expression of small, therapeutic RNAs in human nuclei," Gene Therapy 4:45-54 (1997)

95. Grant et al., "Insulin-like growth factor I acts as an angiogenic agent in rabbit cornea and retina: comparative studies with basic fibroblast growth factor," *Diabetologia* 36:282-291 (1993)
96. Hall et al., "Establishment and Maintenance of a Heterochromatin Domain," *Science* 297:2232-2237 (2002)
97. Hammond et al., "An RNA-Directed Nuclease Mediates Post-Transcriptional Gene Silencing in *Drosophila* Cells," *Nature* 404:293-296 (2000)
98. Hermann and Patel, "Adaptive Recognition by Nucleic Acid Aptamers," *Science* 287:820-825 (2000)
99. Hofland and Huang, "Formulation and Delivery of Nucleic Acids," *Handbook of Exp. Pharmacol.* 137:165-192 (1999)
100. Hunziker et al., "Nucleic Acid Analogues: Synthesis and Properties, in Modern Synthetic Methods," VCH, 331-417
101. Hutvagner and Zamore, "A MicroRNA in a Multiple-Turnover RNAi Enzyme Complex," *Science* 297:2056-2060 (2002)
102. Hutvagner et al., "A Cellular Function for the RNA-Interference Enzyme Dicer in the Maturation of the *let-7* Small Temporal RNA," *Science* 293:834-838 (2001)
103. Ishiwata et al., "Physical-Chemistry Characteristics and Biodistribution of Poly(ethylene glycol)-Coated Liposomes Using Poly(oxyethylene) Cholestryl Ether," *Chem. Pharm. Bull.* 43:1005-1011 (1995) (mistakenly referred to as Ishiwata et al.)
104. Izant and Weintraub, "Constitutive and Conditional Suppression of Exogenous and Endogenous Genes by Anti-Sense RNA," *Science* 229:345-352 (1985)
105. Jaschke et al., "Automated Incorporation of Polyethylene Glycol into Synthetic Oligonucleotides," *Tetrahedron Letters* 34:301-304 (1993) (sometimes mistakenly referred to as Jschke)
106. Jayasena, "Aptamers: An Emerging Class of Molecules that Rival Antibodies in Diagnostics," *Clinical Chemistry* 45:1628-1650 (1999)
107. Jenuwein, "An RNA-Guided Pathway for the Epigenome," *Science* 297:2215-2218 (2002)
108. Jolliet-Riant and Tillement, "Drug transfer across the blood-brain barrier and improvement of brain delivery," *Fundam. Clin. Pharmacol.* 13:16-26 (1999)

109. Karpeisky et al, "Highly Efficient Synthesis of 2'-O-Amino Nucleosides And Their Incorporation in Hammerhead Ribozymes," Tetrahedron Letters 39:1131-1134 (1998)
110. Kashani-Sabet et al., "Reversal of the Malignant Phenotype by an Anti-ras Ribozyme," Antisense Research & Development 2:3-15 (1992)
111. Kaspareit-Rittinghausen et al., "Animal Model of Human Disease," Am. J. Pathol., 139, 693-696 (1991)
112. Kim et al., "Inhibition of vascular endothelial growth factor-induced angiogenesis suppresses tumour growth *in vivo*," Nature 362:841-844 (1993)
113. Koch et al., "Vascular Endothelial Growth Factor," Journal of Immunology 152:4149-4156 (1994)
114. Kusser, "Chemically modified nucleic acid aptamers for in vitro selections: evolving evolution," Reviews in Molecular Biotechnology 74:27-38 (2000)
115. Lasic and Needham "The 'Stealth' Liposome: A Prototypical Biomaterial," Chemical Reviews 95:2601-2627 (1995)
116. Lasic and Papahadjopoulos, "Liposomes Revisited," Science 267:1275-1276 (1995)
117. Lee and Larson, "Modified Liposome Formulations for Cytosolic Delivery of Macromolecules," ACS Symposium Series 752:184-192 (2000)
118. Lee and Lee, "Preparation of Cluster Glycosides of N-Acetylgalactosamine That Have Subnanomolar Binding Constants Towards the Mammalian Hepatic Gal/GalNAc-specific Receptor," Glyconjugates J. 4:317-328 (1987)
119. Lee et al., "Expression of Small Interfering RNA's Targeted Against HIV-1 *rev* Transcripts in Human Cells," Nature Biotechnology 19:500-505 (2002)
120. Lepri et al., "Effect of Low Molecular Weight Heparan Sulphate on Angiogenesis in the Rat Cornea after Chemical Cauterization," Journal of Ocular Pharmacology 10:273-281 (1994)
121. L'Huillier et al., "Cytoplasmic Delivery of Ribozymes Leads to Efficient Reduction in α -Lactalbumin mRNA Levels in C1271 Mouse," EMBO J. 11:4411-4418 (1992)
122. Lieber et al., "Stable High-Level Gene Expression in Mammalian Cells by T7 Phage RNA Polymerase," Methods Enzymol. 217:47-66 (1993)
123. Limbach et al., "Summary: the modified nucleosides of RNA," Nucleic Acids Research 22(12):2183-2196 (1994)

124. Lin and Matteucci, "A Cytosine Analogue Capable of Clamp-Like Binding to a Guanine in Helical Nucleic Acid," *J. Am. Chem. Soc.* 120:8531-8532 (1998)
125. Lisziewicz et al., "Inhibition of Human Immunodeficiency Virus Type 1 Replication by Regulated Expression of a Polymeric Tat Activation Response RNA Decoy as a Strategy for Gene Therapy in AIDS," *Proc. Natl. Acad. Sci. U.S.A.* 90:8000-8004 (1993)
126. Liu et al., "Cationic Liposome-mediated Intravenous Gene Delivery," *J. Biol. Chem.* 270(42):24864-24870 (1995)
127. Loakes, "The Applications of Universal DNA Base Analogues," *Nucleic Acids Research* 29:2437-2447 (2001)
128. Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach," *Biochemistry* 32:1751-1758 (1993)
129. Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach. 2. Generation of Covalently Closed, Double-Stranded Cyclic HIV-1 TAR RNA Analogs with High Tat-Binding Affinity," *Nucleic Acids Research* 21:2585-2589 (1993)
130. Martinez et al., "Single-Stranded Antisense siRNAs Guide Target RNA Cleavage in RNAi," *Cell* 110:563-574 (2002)
131. Maurer et al., "Lipid-based systems for the intracellular delivery of genetic drugs," *Molecular Membrane Biology* 16:129-140 (1999)
132. McCurdy et al., "Deoxyoligonucleotides with Inverted Polarity: Synthesis and Use in Triple-Helix Formation" *Nucleosides & Nucleotides* 10:287-290 (1991)
133. McGarry and Lindquist, "Inhibition of heat shock protein synthesis by heat-inducible antisense RNA," *Proc. Natl. Acad. Sci. USA* 83:399-403 (1986)
134. McManus et al., "Gene Silencing Using Micro-RNA Designed Hairpins," *RNA* 8:842-850 (2002)
135. Mesmaeker et al, "Novel Backbone Replacements for Oligonucleotides," *American Chemical Society*, pp. 24-39 (1994)
136. Miyagishi and Taira, "U6 Promoter-driven siRNAs with Four Uridine 3' Overhangs Efficiently Suppress Targeted Gene Expression in Mammalian Cells," *Nature Biotechnology* 19:497-500 (2002)
137. Moore and Sharp, "Site-Specific Modification of Pre-mRNA: The 2'-Hydroxyl Groups at the Splice Sites," *Science* 256:992-996 (1992)

138. Noonberg et al., *In vivo* generation of highly abundant sequence-specific oligonucleotides for antisense and triplex gene regulation," Nucleic Acids Research 22(14):2830-2836 (1994)
139. Norrby, "Angiogenesis: new aspects relating to its initiation and control," APMIA 105:417-437 (1997)
140. Novina et al., "siRNA-Directed Inhibition of HIV-1 Infection," Nature Medicine 1-6 (2002)
141. Nykanen et al., "ATP Requirements and Small Interfering RNA Structure in the RNA Interference Pathway," Cell 107:309-321 (2001)
142. Ohkawa et al., "Activities of HIV-RNA Targeted Ribozymes Transcribed From a 'Shot-Gun' Type Ribozyme-trimming Plasmid," Nucleic Acids Symp. Ser. 27:15-16 (1992)
143. Ojwang et al., "Inhibition of Human Immunodeficiency Virus Type 1 Expression by a Hairpin Ribozyme," Proc. Natl. Acad. Sci. USA 89:10802-10806 (1992)
144. Oku et al., "Real-time analysis of liposomal trafficking in tumor-bearing mice by use of positron emission tomography," Biochimica et Biophysica Acta 1238:86-90 (1995)
145. Ono et al., "DNA Triplex Formation of Oligonucleotide Analogues Consisting of Linker Groups and Octamer Segments That Have Opposite Sugar-Phosphate Backbone Polarities," Biochemistry 30:9914-9921 (1991)
146. O'Reilly et al., "Angiostatin: A Novel Angiogenesis Inhibitor That Mediates the Suppression of Metastases by a Lewis Lung Carcinoma," Cell 79:315-328 (1994)
147. Ormerod et al., "Effects of Altering the Eicosanoid Precursor Pool on Neovascularization and Inflammation in the Alkali-burned Rabbit Cornea," American Journal of Pathology 137:1243-1252 (1990)
148. Pandey et al., "Role of B61, the Ligand for the Eck Receptor Tyrosine Kinase, in TNF- α -Induced Angiogenesis," Science 268:567-569 (1995)
149. Pardridge et al., "Vector-mediated delivery of a polyamide ("peptide") nucleic acid analogue through the blood-brain barrier *in vivo*," Proc. Natl. Acad. Sci. USA 92:5592-5596 (1995)
150. Parrish, "Functional Anatomy of a dsRNA Trigger: Differential Requirement for the Two Trigger Strands in RNA Interference," Molecular Cell 6:1077-1087 (2000)
151. Passaniti et al., "A Simple, Quantitative Method for Assessing Angiogenesis and Antiangiogenic Agents Using Reconstituted Basement Membrane, Heparin, and Fibroblast Growth Factor," Laboratory Investigation 67:519-528 (1992)

152. Paul et al., "Effective Expression of Small Interfering RNA in Human Cells," Nature Biotechnology 20:505-508 (2002)
153. Perreault et al., "Mixed Deoxyribo- and Ribo-Oligonucleotides with Catalytic Activity," Nature 344:565-567 (1990) (often mistakenly listed as Perrault)
154. Pieken et al., "Kinetic Characterization of Ribonuclease-Resistant 2'-Modified Hammerhead Ribozymes," Science 253:314-317 (1991)
155. Pierce et al., "Vascular endothelial growth factor/vascular permeability factor expression in a mouse model of retinal neovascularization," Proc. Natl. Acad. Sci. USA 92:905-909 (1995)
156. Plate, "Vascular endothelial growth factor is potential tumor angiogenesis factor in human gliomas *in vivo*," Nature 359:845-848 (1992)
157. Ponpipom et al., "Cell-Specific Ligands for Selective Drug Delivery to Tissues and Organs," J. Med. Chem. 24:1388-1395 (1981)
158. Reinhart and Bartel, "Small RNAs Correspond to Centromer Heterochromatic Repeats," Science 297:1831 (2002)
159. Reinhart et al., "MicroRNAs in Plants," Genes & Development 16:1616-1626 (2002)
160. Richardson and Schepartz, "Tethered Oligonucleotide Probes. A Strategy for the Recognition of Structured RNA," J. Am. Chem. Soc. 113:5109-5111 (1991)
161. Sarver et al., "Ribozymes as Potential Anti-HIV-1 Therapeutic Agents" Science 247:1222-1225 (1990)
162. Scanlon et al., "Ribozyme-Mediated Cleavage of c-fos mRNA Reduces Gene Expression of DNA Synthesis Enzymes and Metallothionein," Proc. Natl. Acad. Sci. USA 88:10591-10595 (1991)
163. Scaringe et al., "Chemical synthesis of biologically active oligoribonucleotides using β -cyanoethyl protected ribonucleoside phosphoramidites," Nucl Acids Res. 18:5433-5441 (1990)
164. Schroeder et al., "Diffusion Enhancement of Drugs by Loaded Nanoparticles in Vitro," Prog. Neuro-Psychopharmacol. & Biol. Psychiat. 23:941-949 (1999) [sometimes cited by RPI as *Prog Neuropsychopharmacol Biol Psychiatry* 23:941-949, 1999]
165. Schwarz et al., "Evidence that siRNAs Function as Guides, Not Primers, in the *Drosophila* and Human RNAi Pathways," Molecular Cell 10:537-548 (2002)

166. Seela and Kaiser, "Oligodeoxyribonucleotides containing 1,3-propanediol as nucleoside substitute," Nucleic Acids Research 15:3113-3129 (1987)
167. Senger et al., "Vascular permeability factor (VPF, VEGF) in tumor biology," Cancer and Metastasis Reviews 12:303-324 (1993)
168. Shabarova et al., "Chemical ligation of DNA: The first non-enzymatic assembly of a biologically active gene," Nucleic Acids Research 19:4247-4251 (1991)
169. Shweiki et al., "Patterns of Expression of Vascular Endothelial Growth Factor (VEGF) and VEGF Receptors in Mice Suggest a Role in Hormonally Regulated Angiogenesis," J. Clin. Invest. 91:2235-2243 (1993)
170. Sullenger and Cech, "Tethering Ribozymes to a Retroviral Packaging Signal for Destruction of Viral RNA," Science 262:1566-1569 (1993)
171. Sun, "Technology evaluation: SELEX, Giliad Sciences Inc," Current Opinion in Molecular Therapeutics 2:100-105 (2000)
172. Taira et al., "Construction of a novel RNA-transcript-trimming plasmid which can be used both *in vitro* in place of run-off and (G)-free transcriptions and *in vivo* as multi-sequences transcription vectors," Nucleic Acids Research 19:5125-5130 (1991)
173. Takahashi et al., "Markedly Increased Amounts of Messenger RNAs for Vascular Endothelial Growth Factor and Placenta Growth Factor in Renal Cell Carcinoma Associated with Angiogenesis," Cancer Research 54:4233-4237 (1994)
174. Thompson et al., "Improved accumulation and activity of ribozymes expressed from a tRNA-based RNA polymerase III promoter," Nucleic Acids Research 23:2259-2268 (1995)
175. Turner et al., "Improved Parameters for Prediction of RNA Structure," Cold Spring Harbor Symposia on Quantitative Biology Volume LII, pp. 123-133 (1987)
176. Turner et al., "Free Energy Increments for Hydrogen Bonds in Nucleic Acid Base Pairs," J. Am. Chem. Soc. 109:3783-3785 (1987)
177. Tuschl et al., "Targeted mRNA Degradation by Double-Stranded RNA In Vitro," Genes & Development 13:3191-3197 (1999)
178. Tuschl, "RNA Interference and Small Interfering RNAs," Chembiochem 2:239-245 (2001)

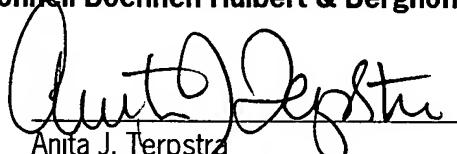
179. Tyler et al., "Peptide nucleic acids targeted to the neuropeptide Y receptor and administered i.p. cross the blood-brain barrier and specifically reduce gene expression," *Proc. Natl. Acad. Sci. USA* 96:7053-7058 (1999)
180. Tyler et al., "Specific gene blockade shows that peptide nucleic acids readily enter neuronal cells in vivo," *FEBS Letters* 421:280-284 (1998)
181. Uhlmann and Peyman, "Antisense Oligonucleotides: A New Therapeutic Principle," *Chemical Reviews* 90:544-584 (1990)
182. Usman and Cedergren, "Exploiting the chemical synthesis of RNA," *TIBS* 17:334-339 (1992)
183. Usman et al., "Automated Chemical Synthesis of Long Oligoribonucleotides Using 2'-O-Silylated Ribonucleoside 3'-O-Phosphoramidites on a Controlled-Pore Glass Support: Synthesis of a 43-Nucleotide Sequence Similar to the 3'-Half Molecule of an *Escherichia coli* Formylmethionine tRNA," *J. Am. Chem. Soc.* 109:7845-7854 (1987)
184. Usman et al., "Chemical modification of hammerhead ribozymes: activity and nuclease resistance," *Nucleic Acids Symposium Series* 31:163-164 (1994)
185. Ventura et al., "Activation of HIV-Specific Ribozyme Activity by Self-Cleavage," *Nucleic Acids Research* 21:3249-3255 (1993)
186. Verma and Eckstein, "Modified Oligonucleotides: Synthesis and Strategy for Users," *Annu. Rev. Biochem.* 67:99-134 (1998)
187. Volpe et al., "Regulation of Heterochromatic Silencing and Histone H3 Lysine-9 Methylation by RNAi," *Science* 297:1833-1837 (2002)
188. Weerasinghe et al., "Resistance to Human Immunodeficiency Virus Type 1 (HIV-1) Infection in Human CD4⁺ Lymphocyte-Derived Cell Lines Conferred by Using Retroviral Vectors Expressing an HIV-1 RNA-Specific Ribozyme," *Journal of Virology* 65:5531-5534 (1994)
189. Wellstein and Czubayko, "Inhibition of Fibroblast Growth Factors," *Breast Cancer Research and Treatment* 38:109-119 (1996)
190. Wianny and Zernicka-Goetz et al., "Specific Interference with Gene Function by Double-Stranded RNA in Early Mouse Development," *Nature Cell Biology* 2:70-75 (2000)
191. Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," *Nucleic Acids Research* 23(14):2677-2684 (1995)

192. Wincott et al., "A Practical Method for the Production of RNA and Ribozymes," Methods in Molecular Biology 74:59-69 (1997)
193. Woo et al., "Taxol inhibits progression of congenital polycystic kidney disease," Nature, 368, 750-753 (1994)
194. Wu and Wu, "Receptor-mediated *in Vitro* Gene Transformation by a Soluble DNA Carrier System," The Journ. of Biol. Chem. 262:4429-4432 (1987)
195. Wu et al, "Cardiac defects and renal failure in mice with targeted mutations in *Pkd2*," Nat. Genet., 24, 75-78 (2000)
196. Yu et al., "A Hairpin Ribozyme Inhibits Expression of Diverse Strains of Human Immunodeficiency Virus Type 1," Proc. Natl. Acad. Sci. USA 90:6340-6344 (1993)
197. Zamore et al., "RNAi: Double-Stranded RNA Directs the ATP-Dependent Cleavage of mRNA at 21 to 23 Nucleotide Intervals," Cell 101:25-33 (2000)
198. Zhou et al., "Synthesis of Functional mRNA in Mammalian Cells by Bacteriophage T3 RNA Polymerase," Mol. Cell. Biol. 10:4529-4537 (1990)
199. Ziche et al., "Angiogenesis Can Be Stimulated or Repressed *In Vivo* by a Change in GM3:GD3 Ganglioside Ratio," Laboratory Investigation 67:711-715 (1992)

Respectfully submitted,
McDonnell Boehnen Hulbert & Berghoff

Date: November 25 2003

By:



Anita J. Terpstra
Reg. No. 47,132

McDonnell Boehnen Hulbert & Berghoff
300 South Wacker Drive, 32nd Floor
Chicago, IL 60606
Telephone: 312-913-0001
Facsimile: 312-913-0002

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

August 29, 2003

U.S. PATENT APPLICATION DOCUMENTS

Examiner Initial	Document Number	Filing Date	Name	Class	Subclass	Publication Date if Appropriate
*	US2002/0130430	12/29/00	Castor			09/12/02
*	US2002/0137210		Churikov			09/26/02
*	10/201,394	08/13/01	Vargeese et al.			
*	60/082,404	04/20/98	Thompson et al.			
*	60/358,580	02/20/02	Beigelman et al.			
*	60/362,016	03/06/02	Matulic-Adamic et al.			
*	60/363,124	03/11/02	Beigelman et al.			
*	60/402,996	08/13/02	Usman et al.			
*	60/406,784	08/29/02	Beigelman et al.			
*	60/408,378	09/05/02	Beigelman et al.			
*	60/409,293	09/09/02	Beigelman et al.			
*	60/440,129	01/15/03	Beigelman et al.			

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date: Group:

August 29, 2003

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
*	5,334,711	08/02/94	Sproat			
*	5,804,603	04/29/97	Noonberg et al.			
*	5,627,053	05/06/97	Usman et al.			
*	5,631,360	05/20/97	Usman et al.			
*	5,672,695	09/30/97	Eckstein et al.			
*	5,716,824	02/10/98	Beigelman et al.			
*	5,804,683	09/08/98	Usman et al.			
*	5,831,071	11/03/98	Usman et al.			
*	5,804,683	12/29/98	Cech et al.			
*	5,889,136	03/30/99	Scaringe et al.			
*	5,902,880	05/11/99	Thompson et al.			
*	5,998,203	12/07/99	Adamic et al.			
*	6,001,311	12/14/99	Brennan			
*	6,008,400	12/28/99	Scaringe et al.			
*	6,054,576	04/25/00	Bellon et al.			

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

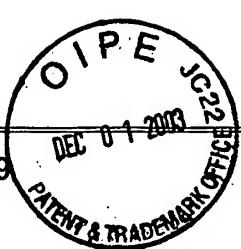
August 29, 2003

*	6,111,086	08/29/00	Scaringe et al.			
*	6,117,657	09/12/00	Usman et al.			
*	6,146,886	11/14/00	Thompson et al.			
*	6,162,909	12/19/00	Bellon et al.			
*	6,248,878	06/19/01	Adamic et al.			
*	6,300,074	10/09/01	Gold			
*	6,303,773	10/16/01	Bellon et al.			
*	6,353,098	03/05/02	Usman et al.			
*	6,362,323	03/26/01	Usman et al.			
*	6,395,713	05/28/02	Beigelman et al.			
*	6,437,117	08/20/02	Usman et al.			
*	6,447,796	09/10/02	Vook et al.			
*	6,469,158	10/22/02	Usman et al.			
*	6,506,559	06/14/03	Fire et al.			

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date: Group:

August 29, 2003

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
1.	2,359,180	08/03/00	CA (Kreutzer et al.)				
2.	1144623 B1	01/29/02	EP (Kreutzer et al.)				
3.	89/02439	03/23/89	WO (Arnold et al.)				
4.	91/03162	03/21/91	WO (Rossi et al.)				
5.	92/07065	04/30/92	WO (Eckstein et al.)				
6.	93/15187	08/05/93	WO (Usman et al.)				
7.	93/23569	11/25/93	WO (Draper et al.)				
8.	94/02595	02/03/94	WO (Sullivan et al.)				
9.	95/06731	03/09/95	WO (Usman et al.)				
10.	95/11910	05/04/95	WO (Dudycz et al.)				
11.	96/10390	04/11/96	WO (Ansell et al.)				
12.	96/10391	04/11/96	WO (Choi et al.)				
13.	96/10392	04/11/96	WO (Holland et al.)				
14.	97/26270	07/24/97	WO (Beigelman et al.)				

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
03-332-B
(400/126)Serial No.
10/652,791INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date: August 29, 2003

Group:

15.	98/13526	04/02/98	WO (Woolf et al.)				
16.	99/07409	02/18/99	WO (Deschamps de Paillette et al.)				
17.	99/14226	03/25/99	WO (Wengel et al.)				
18.	99/31262	06/24/99	WO (Barry et al.)				
19.	99/32619	07/01/99	WO (Fire et al.)				
20.	99/49029	09/30/99	WO (Graham et al.)				
21.	99/53050	10/21/99	WO (Waterhouse et al.)				
22.	99/54459	10/28/99	WO (Thompson et al.)				
23.	00/01846	01/13/00	WO (Plaetinck et al.)				
24.	00/44895	08/03/00	WO (Kreutzer et al.)				
25.	00/44914	08/03/00	WO (Li et al.)				
26.	00/53722	09/14/00	WO (O'Hare and Normand)				
27.	00/63364	10/26/00	WO (Pachuk et al.)				
28.	00/66604	11/09/00	WO (Wengel et al.)				
29.	01/04313	01/18/01	WO (Satishchandran et al.)				
30.	01/29058	04/26/01	WO (Mello et al.)				
31.	01/36646	05/25/01	WO (Zernicka-Goetz et al.)				

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
03-332-B
(400/126)Serial No.
10/652,791INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date: August 29, 2003 **Group:**

32.	01/38551	05/31/01	WO (Grossniklaus)				
33.	01/42443	06/14/01	WO (Churikov et al.)				
34.	01/49844	07/12/01	WO (Driscoll et al.)				
35.	01/53475	07/26/01	WO (Cogoni et al.)				
36.	01/68836	09/20/01	WO (Beach et al.)				
37.	01/70944	09/27/01	WO (Honer et al.)				
38.	01/70949	09/27/01	WO (Graham et al.)				
39.	01/72774	10/04/01	WO (Deak et al.)				
40.	01/75164	10/11/01	WO (Tuschl et al.)				
41.	01/92513	05/29/01	WO (Arndt et al.)				
42.	02/38805	05/16/02	WO (Echeverri et al.)				
43.	02/44321	06/06/02	WO (Tuschl et al.)				
44.	02/55692	07/18/02	WO (Kreutzer et al.)				
45.	02/55693	07/18/02	WO (Kreutzer et al.)				
46.	03/05028	02/20/03	WO (McSwiggen et al.)				
47.	03/05346	02/20/03	WO (McSwiggen et al.)				

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
03-332-B
(400/126)Serial No.
10/652,791INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date: August 29, 2003 Group:

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

48.	Akhtar and Juliano, "Cellular Uptake and Intracellular Fate of AntiSense-Oligonucleotides," <i>Trends Cell Biol.</i> 2:139-144 (1992)
49.	Aldrian-Herrada et al., "A peptide nucleic acid (PNA) is more rapidly internalized in cultured neurons when coupled to a <i>retro-inverso</i> delivery peptide. The antisense activity depresses the target mRNA and protein in magnocellular oxytocin neurons," <i>Nucleic Acids Research</i> 26:4910-4916 (1998)
50.	Allshire, "RNAi and Heterochromatin - A Hushed-up Affair," <i>Science</i> 297:1818-1819 (2002)
51.	Andrews and Faller, "A rapid micropreparation technique for extraction of DNA-binding proteins from limiting numbers of mammalian cells," <i>Nucleic Acids Research</i> 19:2499 (1991)
52.	Baenziger and Fiete, "Galactose and N-Acetylgalactosamine-Specific Endocytosis of Glycopeptides by Isolated Rat Hepatocytes," <i>Cell</i> 22:611-620 (1980)
53.	Bass, "The short answer," <i>Nature</i> 411:428-429 (2001)
54.	Beaucage and Iyer, "The Functionalization of Oligonucleotides Via Phosphoramidite Derivatives," <i>Tetrahedron</i> 49:1925-1963 (1993)
55.	Beigelman et al., "Chemical Modification of Hammerhead Ribozymes," <i>The Journal of Biological Chemistry</i> 270:25702-25708 (1995)
56.	Bellon et al., "Amino-Linked Ribozymes: Post-Synthetic Conjugation of Half-Ribozymes," <i>Nucleosides & Nucleotides</i> 16:951-954 (1997)
57.	Bellon et al., "Post-synthetically Ligated Ribozymes: An Alternative Approach to Iterative Solid Phase Synthesis," <i>Bioconjugate Chem.</i> 8:204-212 (1997)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark OfficeINFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

Applicant:

McSwiggen et al.

Filing Date:

August 29, 2003

Group:

58.	Berkman et al., "Expression of the Vascular Permeability Factor/Vascular Endothelial Growth Factor Gene in Central Nervous System Neoplasms," <i>The Journal of Clinical Investigation, Inc.</i> 91:153-159 (1993)
59.	Bernstein et al., "Role for a Bidentate Ribonuclease in the Initiation Step of RNA Interference," <i>Nature</i> 409:363-366 (2001)
60.	Boado et al., "Drug Delivery of Antisense Molecules to the Brain for Treatment of Alzheimer's Disease and Cerebral AIDS," <i>Journal of Pharmaceutical Sciences</i> 87:1308-1315 (1998)
61.	Boado, "Antisense drug delivery through the blood-brain barrier," <i>Advanced Drug Delivery Reviews</i> 15:73-107 (1995)
62.	Brennan et al., "Two-Dimensional Parallel Array Technology as a New Approach to Automated Combinatorial Solid-Phase Organic Synthesis," <i>Biotechnology and Bioengineering (Combinatorial Chemistry)</i> 61:33-45 (1998)
63.	Brody and Gold, "Aptamers as therapeutic and diagnostic agents," <i>Reviews in Molecular Biotechnology</i> 74:5-13 (2000)
64.	Burger et al., "Experimental Corneal Neovascularization: Biomicroscopic, Angiographic, and Morphologic Correlation," <i>Cornea</i> 4:35-41 (1985/1986)
65.	Burgin et al., "Chemically Modified Hammerhead Ribozymes with Improved Catalytic Rates," <i>Biochemistry</i> 35:14090-14097 (1996) (volume no. mistakenly listed as 6)
66.	Burlina et al., "Chemical Engineering of RNase Resistant and Catalytically Active Hammerhead Ribozymes," <i>Bioorganic & Medicinal Chemistry</i> 5:1999-2010 (1997)
67.	Caruthers et al., "Chemical Synthesis of Deoxyoligonucleotides and Deoxyoligonucleotide Analogs," <i>Methods in Enzymology</i> 211:3-19 (1992)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
03-332-B
(400/126)Serial No.
10/652,791INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date: August 29, 2003 Group:

68.	Chen et al., "Multitarget-Ribozyme Directed to Cleave at up to Nine Highly Conserved HIV-1 env RNA Regions Inhibits HIV-1 Replication-Potential Effectiveness Against Most Presently Sequenced HIV-1 Isolates," <i>Nucleic Acids Research</i> 20:4581-4589 (1992)
69.	Chowrira et al., "In Vitro and in Vivo Comparison of Hammerhead, Hairpin, and Hepatitis Delta Virus Self-Processing Ribozyme Cassettes," <i>J. Biol. Chem.</i> 269:25856-25864 (1994)
70.	Cload and Schepartz, "Polyether Tethered Oligonucleotide Probes," <i>J. Am. Chem. Soc.</i> 113:6324-6326 (1991)
71.	Connolly et al., "Binding and Endocytosis of Cluster Glycosides by Rabbit Hepatocytes," <i>The Journ. of Biol. Chem.</i> 257:939-945 (1982)
72.	Conry et al., "Phase I Trial of a Recombinant Vaccinia Virus Encoding Carcinoembryonic Antigen in Metastatic Adenocarcinoma: Comparison of Intradermal versus Subcutaneous Administration," <i>Clinical Cancer Research</i> 5:2330-2337 (1999)
73.	Couture and Stinchcomb, "Anti-gene therapy: the use of ribozymes to inhibit gene function," <i>Trends In Genetics</i> 12:510-515 (1996)
74.	Detmar et al., "Overexpression of Vascular Permeability Factor/Vascular Endothelial Growth Factor and its Receptors in Psoriasis," <i>J. Exp. Med.</i> 180:1141-1146 (1994)
75.	Dropulic et al., "Functional Characterization of a U5 Ribozyme: Intracellular Suppression of Human Immunodeficiency Virus Type I Expression," <i>Journal of Virology</i> 66:1432-1441 (1992)
76.	Durand et al., "Circular Dichroism Studies of an Oligodeoxyribonucleotide Containing a Hairpin Loop Made of a Hexaethylene Glycol Chain: Conformation and Stability," <i>Nucleic Acids Research</i> 18:6353-6359 (1990) [sometimes referred to as Seela and Kaiser]
77.	Earnshaw et al., "Modified Oligoribonucleotides as Site-Specific Probes of RNA Structure and Function," <i>Biopolymers</i> 48:39-55 (1998)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

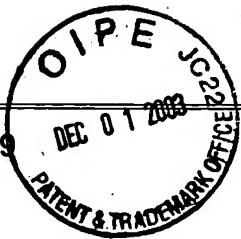
August 29, 2003

78.	Elbashir et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," <i>Nature</i> 411:494-498 (2001)
79.	Elbashir et al., "Functional Anatomy of siRNAs for Mediating Efficient RNAi in <i>Drosophila Melanogaster</i> Embryo Lysate," <i>The EMBO Journal</i> 20:6877-6888 (2001)
80.	Elbashir et al., "RNA Interference is Mediated by 21- and 22-Nucleotide RNAs," <i>Genes and Development</i> 15:188-200 (2001)
81.	Elkins and Rossi, "Ch. 2 - Cellular Delivery of Ribozymes," in <i>Delivery Strategies for Antisense Oligonucleotide Therapeutics</i> , edited by Akhtar, CRC Press, pp. 17-220 (1995)
82.	Elroy-Stein and Moss, "Cytoplasmic Expression System Based on Constitutive Synthesis of Bacteriophage T7 RNA Polymerase in Mammalian Cells," <i>Proc. Natl. Acad. Sci. USA</i> 87:6743-6747 (1990)
83.	Emerich et al., "Biocompatibility of Poly (DL-Lactide-co-Glycolide) Microspheres Implanted Into the Brain," <i>Cell Transplantation</i> 8:47-58 (1999)
84.	Fava et al., "Vascular Permeability Factor/Endothelial Growth Factor (VPF/VEGF): Accumulation and Expression in Human Synovial Fluids and Rheumatoid Synovial Tissue," <i>J. Exp. Med.</i> 180:341-346 (1994)
85.	Ferentz and Verdine, "Disulfided Cross-Linked Oligonucleotides," <i>J. Am. Chem. Soc.</i> 113:4000-4002 (1991)
86.	Fire et al., "Potent and Specific Genetic Interference by Double-Stranded RNA in <i>Caenorhabditis Elegans</i> ," <i>Nature</i> 391:806-811 (1998)
87.	Fire, "RNA-triggered Gene Silencing," <i>TIG</i> 15:358-363 (1999)
88.	Folkman et al., "Long-term Culture of Capillary Endothelial Cells," <i>Proc. Natl. Acad. Sci. USA</i> 76:5217-5221 (1979)
89.	Folkman, Judah, "Tumor Angiogenesis," <i>Advances in Cancer Research</i> 43:175-203 (1985)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

August 29, 2003

Group:

	90. ✓ Freier et al., "Improved free-energy parameters for predictions of RNA duplex stability," <u>Proc. Natl. Acad. Sci. USA</u> 83:9373-9377 (1986) [sometimes referred to as Frier]
	91. ✓ Gao and Huang, "Cytoplasmic Expression of a Reporter Gene by Co-Delivery of T7 RNA Polymerase and T7 Promoter Sequence with Cationic Liposomes," <u>Nucleic Acids Research</u> 21:2867-2872 (1993)
	92. ✓ Gold et al., "Diversity of Oligonucleotide Functions," <u>Annu. Rev. Biochem.</u> 64:763-797 (1995)
	93. ✓ Gonzalez et al., "New Class of Polymers for the Delivery of Macromolecular Therapeutics," <u>Bioconjugate Chem.</u> , 10, 1068-1074 (1999)
	94. ✓ Good et al., "Expression of small, therapeutic RNAs in human nuclei," <u>Gene Therapy</u> 4:45-54 (1997)
	95. ✓ Grant et al., "Insulin-like growth factor I acts as an angiogenic agent in rabbit cornea and retina: comparative studies with basic fibroblast growth factor," <u>Diabetologia</u> 36:282-291 (1993)
	96. ✓ Hall et al., "Establishment and Maintenance of a Heterochromatin Domain," <u>Science</u> 297:2232-2237 (2002)
	97. ✓ Hammond et al., "An RNA-Directed Nuclease Mediates Post-Transcriptional Gene Silencing in <i>Drosophila</i> Cells," <u>Nature</u> 404:293-296 (2000)
	98. ✓ Hermann and Patel, "Adaptive Recognition by Nucleic Acid Aptamers," <u>Science</u> 287:820-825 (2000)
	99. ✓ Hofland and Huang, "Formulation and Delivery of Nucleic Acids," <u>Handbook of Exp. Pharmacol.</u> 137:165-192 (1999)
	100. ✓ Hunziker et al., "Nucleic Acid Analogues: Synthesis and Properties, in Modern Synthetic Methods," <u>VCH</u> , 331-417

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

August 29, 2003

101.	Hutvagner and Zamore, "A MicroRNA in a Multiple-Turnover RNAi Enzyme Complex," <u>Science</u> 297:2056-2060 (2002)
102.	Hutvagner et al., "A Cellular Function for the RNA-Interference Enzyme Dicer in the Maturation of the <i>let-7</i> Small Temporal RNA," <u>Science</u> 293:834-838 (2001)
103.	Ishiwata et al., "Physical-Chemistry Characteristics and Biodistribution of Poly(ethylene glycol)-Coated Liposomes Using Poly(oxyethylene) Cholestryl Ether," <u>Chem. Pharm. Bull.</u> 43:1005-1011 (1995) (mistakenly referred to as Ishiwata et al.)
104.	Izant and Weintraub, "Constitutive and Conditional Suppression of Exogenous and Endogenous Genes by Anti-Sense RNA," <u>Science</u> 229:345-352 (1985)
105.	Jaschke et al., "Automated Incorporation of Polyethylene Glycol into Synthetic Oligonucleotides," <u>Tetrahedron Letters</u> 34:301-304 (1993) (sometimes mistakenly referred to as Jschke)
106.	Jayasena, "Aptamers: An Emerging Class of Molecules that Rival Antibodies in Diagnostics," <u>Clinical Chemistry</u> 45:1628-1650 (1999)
107.	Jenuwein, "An RNA-Guided Pathway for the Epigenome," <u>Science</u> 297:2215-2218 (2002)
108.	Jolliet-Riant and Tillement, "Drug transfer across the blood-brain barrier and improvement of brain delivery," <u>Fundam. Clin. Pharmacol.</u> 13:16-26 (1999)
109.	Karpeisky et al, "Highly Efficient Synthesis of 2'-O-Amino Nucleosides And Their Incorporation in Hammerhead Ribozymes," <u>Tetrahedron Letters</u> 39:1131-1134 (1998)
110.	Kashani-Sabet et al., "Reversal of the Malignant Phenotype by an Anti-ras Ribozyme," <u>Antisense Research & Development</u> 2:3-15 (1992)
111.	Kaspereit-Rittinghausen et al., "Animal Model of Human Disease," <u>Am. J. Pathol.</u> , 139, 693-696 (1991)
112.	Kim et al., "Inhibition of vascular endothelial growth factor-induced angiogenesis suppresses tumour growth <i>in vivo</i> ," <u>Nature</u> 362:841-844 (1993)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

Serial No.

03-332-B
(400/126)

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

August 29, 2003

113.	Koch et al., "Vascular Endothelial Growth Factor," <i>Journal of Immunology</i> 152:4149-4156 (1994)
114.	Kusser, "Chemically modified nucleic acid aptamers for in vitro selections: evolving evolution," <i>Reviews in Molecular Biotechnology</i> 74:27-38 (2000)
115.	Lasic and Needham "The 'Stealth' Liposome: A Prototypical Biomaterial," <i>Chemical Reviews</i> 95:2601-2627 (1995)
116.	Lasic and Papahadjopoulos, "Liposomes Revisited," <i>Science</i> 267:1275-1276 (1995)
117.	Lee and Larson, "Modified Liposome Formulations for Cytosolic Delivery of Macromolecules," <i>ACS Symposium Series</i> 752:184-192 (2000)
118.	Lee and Lee, "Preparation of Cluster Glycosides of N-Acetylgalactosamine That Have Subnanomolar Binding Constants Towards the Mammalian Hepatic Gal/GalNAc-specific Receptor," <i>Glyconjugates J.</i> 4:317-328 (1987)
119.	Lee et al., "Expression of Small Interfering RNA's Targeted Against HIV-1 rev Transcripts in Human Cells," <i>Nature Biotechnology</i> 19:500-505 (2002)
120.	Lepri et al., "Effect of Low Molecular Weight Heparan Sulphate on Angiogenesis in the Rat Cornea after Chemical Cauterization," <i>Journal of Ocular Pharmacology</i> 10:273-281 (1994)
121.	L'Huillier et al., "Cytoplasmic Delivery of Ribozymes Leads to Efficient Reduction in α -Lactalbumin mRNA Levels in C1271 Mouse," <i>EMBO J.</i> 11:4411-4418 (1992)
122.	Lieber et al., "Stable High-Level Gene Expression in Mammalian Cells by T7 Phage RNA Polymerase," <i>Methods Enzymol.</i> 217:47-66 (1993)
123.	Limbach et al., "Summary: the modified nucleosides of RNA," <i>Nucleic Acids Research</i> 22(12):2183-2196 (1994)
124.	Lin and Matteucci, "A Cytosine Analogue Capable of Clamp-Like Binding to a Guanine in Helical Nucleic Acid," <i>J. Am. Chem. Soc.</i> 120:8531-8532 (1998)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
03-332-B
(400/126)Serial No.
10/652,791INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date: August 29, 2003 Group:

125.	Lisziewicz et al., "Inhibition of Human Immunodeficiency Virus Type 1 Replication by Regulated Expression of a Polymeric Tat Activation Response RNA Decoy as a Strategy for Gene Therapy in AIDS," <u>Proc. Natl. Acad. Sci. U.S.A.</u> 90:8000-8004 (1993)
126.	Liu et al., "Cationic Liposome-mediated Intravenous Gene Delivery," <u>J. Biol. Chem.</u> 270(42):24864-24870 (1995)
127.	Loakes, "The Applications of Universal DNA Base Analogues," <u>Nucleic Acids Research</u> 29:2437-2447 (2001)
128.	Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach," <u>Biochemistry</u> 32:1751-1758 (1993)
129.	Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach. 2. Generation of Covalently Closed, Double-Stranded Cyclic HIV-1 TAR RNA Analogs with High Tat-Binding Affinity," <u>Nucleic Acids Research</u> 21:2585-2589 (1993)
130.	Martinez et al., "Single-Stranded Antisense siRNAs Guide Target RNA Cleavage in RNAi," <u>Cell</u> 110:563-574 (2002)
131.	Maurer et al., "Lipid-based systems for the intracellular delivery of genetic drugs," <u>Molecular Membrane Biology</u> 16:129-140 (1999)
132.	McCurdy et al., "Deoxyoligonucleotides with Inverted Polarity: Synthesis and Use in Triple-Helix Formation" <u>Nucleosides & Nucleotides</u> 10:287-290 (1991)
133.	McGarry and Lindquist, "Inhibition of heat shock protein synthesis by heat-inducible antisense RNA," <u>Proc. Natl. Acad. Sci. USA</u> 83:399-403 (1986)
134.	McManus et al., "Gene Silencing Using Micro-RNA Designed Hairpins," <u>RNA</u> 8:842-850 (2002)
135.	Meismaeker et al, "Novel Backbone Replacements for Oligonucleotides," <u>American Chemical Society</u> , pp. 24-39 (1994)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

August 29, 2003

	136. Miyagishi and Taira, "U6 Promoter-driven siRNAs with Four Uridine 3' Overhangs Efficiently Suppress Targeted Gene Expression in Mammalian Cells," <u>Nature Biotechnology</u> 19:497-500 (2002)
	137. Moore and Sharp, "Site-Specific Modification of Pre-mRNA: The 2'-Hydroxyl Groups at the Splice Sites," <u>Science</u> 256:992-996 (1992)
	138. Noonberg et al., <u>In vivo</u> generation of highly abundant sequence-specific oligonucleotides for antisense and triplex gene regulation," <u>Nucleic Acids Research</u> 22(14):2830-2836 (1994)
	139. Norrby, "Angiogenesis: new aspects relating to its initiation and control," <u>APMIA</u> 105:417-437 (1997)
	140. Novina et al., "siRNA-Directed Inhibition of HIV-1 Infection," <u>Nature Medicine</u> 1-6 (2002)
	141. Nykanen et al., "ATP Requirements and Small Interfering RNA Structure in the RNA Interference Pathway," <u>Cell</u> 107:309-321 (2001)
	142. Ohkawa et al., "Activities of HIV-RNA Targeted Ribozymes Transcribed From a 'Shot-Gun' Type Ribozyme-trimming Plasmid," <u>Nucleic Acids Symp. Ser.</u> 27:15-16 (1992)
	143. Ojwang et al., "Inhibition of Human Immunodeficiency Virus Type 1 Expression by a Hairpin Ribozyme," <u>Proc. Natl. Acad. Sci. USA</u> 89:10802-10806 (1992)
	144. Oku et al., "Real-time analysis of liposomal trafficking in tumor-bearing mice by use of positron emission tomography," <u>Biochimica et Biophysica Acta</u> 1238:86-90 (1995)
	145. Ono et al., "DNA Triplex Formation of Oligonucleotide Analogues Consisting of Linker Groups and Octamer Segments That Have Opposite Sugar-Phosphate Backbone Polarities," <u>Biochemistry</u> 30:9914-9921 (1991)
	146. O'Reilly et al., "Angiostatin: A Novel Angiogenesis Inhibitor That Mediates the Suppression of Metastases by a Lewis Lung Carcinoma," <u>Cell</u> 79:315-328 (1994)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
03-332-B
(400/126)Serial No.
10/652,791INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date: Group:

August 29, 2003

147.	Ormerod et al., "Effects of Altering the Eicosanoid Precursor Pool on Neovascularization and Inflammation in the Alkali-burned Rabbit Cornea," <i>American Journal of Pathology</i> 137:1243-1252 (1990)
148.	Pandey et al., "Role of B61, the Ligand for the Eck Receptor Tyrosine Kinase, in TNF- α -Induced Angiogenesis," <i>Science</i> 268:567-569 (1995)
149.	Pardridge et al., "Vector-mediated delivery of a polyamide ("peptide") nucleic acid analogue through the blood-brain barrier <i>in vivo</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 92:5592-5596 (1995)
150.	Parrish, "Functional Anatomy of a dsRNA Trigger: Differential Requirement for the Two Trigger Strands in RNA Interference," <i>Molecular Cell</i> 6:1077-1087 (2000)
151.	Passaniti et al., "A Simple, Quantitative Method for Assessing Angiogenesis and Antiangiogenic Agents Using Reconstituted Basement Membrane, Heparin, and Fibroblast Growth Factor," <i>Laboratory Investigation</i> 67:519-528 (1992)
152.	Paul et al., "Effective Expression of Small Interfering RNA in Human Cells," <i>Nature Biotechnology</i> 20:505-508 (2002)
153.	Perreault et al., "Mixed Deoxyribo- and Ribo-Oligonucleotides with Catalytic Activity," <i>Nature</i> 344:565-567 (1990) (often mistakenly listed as Perrault)
154.	Pieken et al., "Kinetic Characterization of Ribonuclease-Resistant 2'-Modified Hammerhead Ribozymes," <i>Science</i> 253:314-317 (1991)
155.	Pierce et al., "Vascular endothelial growth factor/vascular permeability factor expression in a mouse model of retinal neovascularization," <i>Proc. Natl. Acad. Sci. USA</i> 92:905-909 (1995)
156.	Plate, "Vascular endothelial growth factor is potential tumor angiogenesis factor in human gliomas <i>in vivo</i> ," <i>Nature</i> 359:845-848 (1992)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

August 29, 2003

157.	Ponpipom et al., "Cell-Specific Ligands for Selective Drug Delivery to Tissues and Organs," <u>J. Med. Chem.</u> 24:1388-1395 (1981)
158.	Reinhart and Bartel, "Small RNAs Correspond to Centromer Heterochromatic Repeats," <u>Science</u> 297:1831 (2002)
159.	Reinhart et al., "MicroRNAs in Plants," <u>Genes & Development</u> 16:1616-1626 (2002)
160.	Richardson and Schepartz, "Tethered Oligonucleotide Probes. A Strategy for the Recognition of Structured RNA," <u>J. Am. Chem. Soc.</u> 113:5109-5111 (1991)
161.	Sarver et al., "Ribozymes as Potential Anti-HIV-1 Therapeutic Agents" <u>Science</u> 247:1222-1225 (1990)
162.	Scanlon et al., "Ribozyme-Mediated Cleavage of c-fos mRNA Reduces Gene Expression of DNA Synthesis Enzymes and Metallothionein," <u>Proc. Natl. Acad. Sci. USA</u> 88:10591-10595 (1991)
163.	Scaringe et al., "Chemical synthesis of biologically active oligoribonucleotides using β -cyanoethyl protected ribonucleoside phosphoramidites," <u>Nucl Acids Res.</u> 18:5433-5441 (1990)
164.	Schroeder et al., "Diffusion Enhancement of Drugs by Loaded Nanoparticles in Vitro," <u>Prog. Neuro-Psychopharmacol. & Biol. Psychiat.</u> 23:941-949 (1999) [sometimes cited by RPI as <u>Prog Neuropsychopharmacol Biol Psychiatry</u> 23:941-949, 1999]
165.	Schwarz et al., "Evidence that siRNAs Function as Guides, Not Primers, in the <i>Drosophila</i> and Human RNAi Pathways," <u>Molecular Cell</u> 10:537-548 (2002)
166.	Seela and Kaiser, "Oligodeoxyribonucleotides containing 1,3-propanediol as nucleoside substitute," <u>Nucleic Acids Research</u> 15:3113-3129 (1987)
167.	Senger et al., "Vascular permeability factor (VPF, VEGF) in tumor biology," <u>Cancer and Metastasis Reviews</u> 12:303-324 (1993)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

August 29, 2003

168.	✓ Shabarova et al., "Chemical ligation of DNA: The first non-enzymatic assembly of a biologically active gene," <i>Nucleic Acids Research</i> 19:4247-4251 (1991)
169.	✓ Shweiki et al., "Patterns of Expression of Vascular Endothelial Growth Factor (VEGF) and VEGF Receptors in Mice Suggest a Role in Hormonally Regulated Angiogenesis," <i>J. Clin. Invest.</i> 91:2235-2243 (1993)
170.	✓ Sullenger and Cech, "Tethering Ribozymes to a Retroviral Packaging Signal for Destruction of Viral RNA," <i>Science</i> 262:1566-1569 (1993)
171.	✓ Sun, "Technology evaluation: SELEX, Gilead Sciences Inc," <i>Current Opinion in Molecular Therapeutics</i> 2:100-105 (2000)
172.	✓ Taira et al., "Construction of a novel RNA-transcript-trimming plasmid which can be used both <i>in vitro</i> in place of run-off and (G)-free transcriptions and <i>in vivo</i> as multi-sequences transcription vectors," <i>Nucleic Acids Research</i> 19:5125-5130 (1991)
173.	✓ Takahashi et al., "Markedly Increased Amounts of Messenger RNAs for Vascular Endothelial Growth Factor and Placenta Growth Factor in Renal Cell Carcinoma Associated with Angiogenesis," <i>Cancer Research</i> 54:4233-4237 (1994)
174.	✓ Thompson et al., "Improved accumulation and activity of ribozymes expressed from a tRNA-based RNA polymerase III promoter," <i>Nucleic Acids Research</i> 23:2259-2268 (1995)
175.	✓ Turner et al., "Improved Parameters for Prediction of RNA Structure," <i>Cold Spring Harbor Symposia on Quantitative Biology Volume LII</i> , pp. 123-133 (1987)
176.	✓ Turner et al., "Free Energy Increments for Hydrogen Bonds in Nucleic Acid Base Pairs," <i>J. Am. Chem. Soc.</i> 109:3783-3785 (1987)
177.	✓ Tuschl et al., "Targeted mRNA Degradation by Double-Stranded RNA In Vitro," <i>Genes & Development</i> 13:3191-3197 (1999)
178.	✓ Tuschl, "RNA Interference and Small Interfering RNAs," <i>ChemBioChem</i> 2:239-245 (2001)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

Group:

August 29, 2003

	179. <input checked="" type="checkbox"/> Tyler et al., "Peptide nucleic acids targeted to the neurotensin receptor and administered i.p. cross the blood-brain barrier and specifically reduce gene expression," <i>Proc. Natl. Acad. Sci. USA</i> 96:7053-7058 (1999)
	180. <input checked="" type="checkbox"/> Tyler et al., "Specific gene blockade shows that peptide nucleic acids readily enter neuronal cells in vivo," <i>FEBS Letters</i> 421:280-284 (1998)
	181. <input checked="" type="checkbox"/> Uhlmann and Peyman, "Antisense Oligonucleotides: A New Therapeutic Principle," <i>Chemical Reviews</i> 90:544-584 (1990)
	182. <input checked="" type="checkbox"/> Usman and Cedergren, "Exploiting the chemical synthesis of RNA," <i>TIBS</i> 17:334-339 (1992)
	183. <input checked="" type="checkbox"/> Usman et al., "Automated Chemical Synthesis of Long Oligoribonucleotides Using 2'-O-Silylated Ribonucleoside 3'-O-Phosphoramidites on a Controlled-Pore Glass Support: Synthesis of a 43-Nucleotide Sequence Similar to the 3'-Half Molecule of an <i>Escherichia coli</i> Formylmethionine tRNA," <i>J. Am. Chem. Soc.</i> 109:7845-7854 (1987)
	184. <input checked="" type="checkbox"/> Usman et al., "Chemical modification of hammerhead ribozymes: activity and nuclease resistance," <i>Nucleic Acids Symposium Series</i> 31:163-164 (1994)
	185. <input checked="" type="checkbox"/> Ventura et al., "Activation of HIV-Specific Ribozyme Activity by Self-Cleavage," <i>Nucleic Acids Research</i> 21:3249-3255 (1993)
	186. <input checked="" type="checkbox"/> Verma and Eckstein, "Modified Oligonucleotides: Synthesis and Strategy for Users," <i>Annu. Rev. Biochem.</i> 67:99-134 (1998)
	187. <input checked="" type="checkbox"/> Volpe et al., "Regulation of Heterochromatic Silencing and Histone H3 Lysine-9 Methylation by RNAi," <i>Science</i> 297:1833-1837 (2002)
	188. <input checked="" type="checkbox"/> Weerasinghe et al., "Resistance to Human Immunodeficiency Virus Type 1 (HIV-1) Infection in Human CD4 ⁺ Lymphocyte-Derived Cell Lines Conferred by Using Retroviral Vectors Expressing an HIV-1 RNA-Specific Ribozyme," <i>Journal of Virology</i> 65:5531-5534 (1994)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-332-B
(400/126)

Serial No.

10/652,791

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

McSwiggen et al.

Filing Date:

August 29, 2003

Group:

189.	Wellstein and Czubayko, "Inhibition of Fibroblast Growth Factors," <u>Breast Cancer Research and Treatment</u> 38:109-119 (1996)
190.	Wianny and Zernicka-Goetz et al., "Specific Interference with Gene Function by Double-Stranded RNA in Early Mouse Development," <u>Nature Cell Biology</u> 2:70-75 (2000)
191.	Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," <u>Nucleic Acids Research</u> 23(14):2677-2684 (1995)
192.	Wincott et al., "A Practical Method for the Production of RNA and Ribozymes," <u>Methods in Molecular Biology</u> 74:59-69 (1997)
193.	Woo et al., "Taxol inhibits progression of congenital polycystic kidney disease," <u>Nature</u> , 368, 750-753 (1994)
194.	Wu and Wu, "Receptor-mediated <i>in Vitro</i> Gene Transformation by a Soluble DNA Carrier System," <u>The Journ. of Biol. Chem.</u> 262:4429-4432 (1987)
195.	Wu et al., "Cardiac defects and renal failure in mice with targeted mutations in <i>Pkd2</i> ," <u>Nat. Genet.</u> , 24, 75-78 (2000)
196.	Yu et al., "A Hairpin Ribozyme Inhibits Expression of Diverse Strains of Human Immunodeficiency Virus Type 1," <u>Proc. Natl. Acad. Sci. USA</u> 90:6340-6344 (1993)
197.	Zamore et al., "RNAi: Double-Stranded RNA Directs the ATP-Dependent Cleavage of mRNA at 21 to 23 Nucleotide Intervals," <u>Cell</u> 101:25-33 (2000)
198.	Zhou et al., "Synthesis of Functional mRNA in Mammalian Cells by Bacteriophage T3 RNA Polymerase," <u>Mol. Cell. Biol.</u> 10:4529-4537 (1990)
199.	Ziche et al., "Angiogenesis Can Be Stimulated or Repressed <i>In Vivo</i> by a Change in GM3:GD3 Ganglioside Ratio," <u>Laboratory Investigation</u> 67:711-715 (1992)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.